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## **(54) MANUFACTURE OF GALVANIZED STEEL SHEET EXCELLENT IN ADHESIVE STRENGTH OF PAINT**

(57)Abstract:

**PURPOSE:** To develop a steel sheet galvanized with Zn-type metal excellent in adhesive strength of paint and corrosion resistance, by forming a phosphate film with a specific composition on the surface of a steel sheet galvanized with Zn-type metal and then by applying silane coupling treatment.

**CONSTITUTION:** A phosphate film is formed in an amount of 0.2W2g/m<sup>2</sup> on the surface of a steel sheet, as an automobile body steel sheet, galvanized with Zn or an Zn alloy by using a phosphating solution containing, at a rate of 1W50g/l, a phosphoric ester-type compound such as  $\beta$ -chloroethyl acid phosphate, ethylene glycol acid phosphate, 2-methacryloyl oxyethyl acid phosphate, etc. Subsequently, the above sheet is washed with water and then subjected to silane coupling treatment by using a silane coupling agent such as  $\gamma$ -aminopropyl triethoxysilane, etc. In this way, the steel sheet galvanized with Zn-type metal excellent in adhesive strength of paint at the time of painting and corrosion resistance can be obtained.